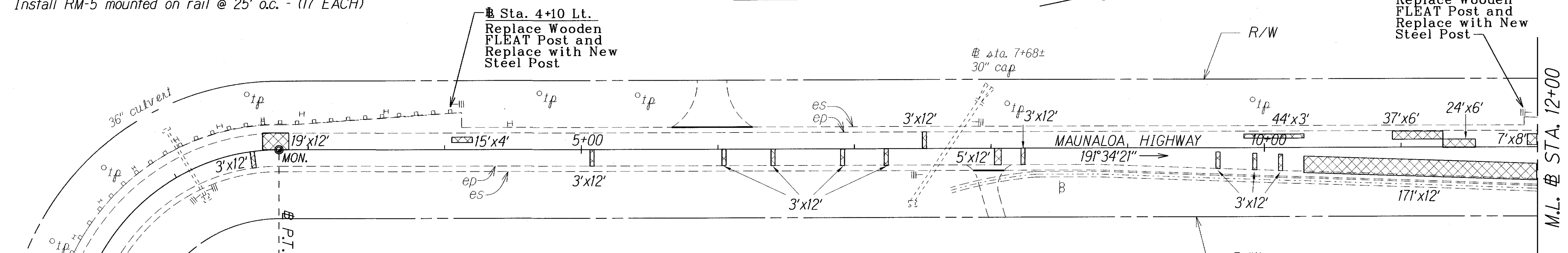


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0460(016)	2013	8	40

STA. 0+00± LT. - # STA. 4+00± LT.
Reset existing guardrail post - (52 EACH)
Install RM-5 mounted on rail @ 25' o.c. - (17 EACH)

STA. 0+00 - # STA. 8+50±
Install Milled Edgeline and Centerline Rumble Strip.
(See Detail on Sht. Nos. 23 & 25)

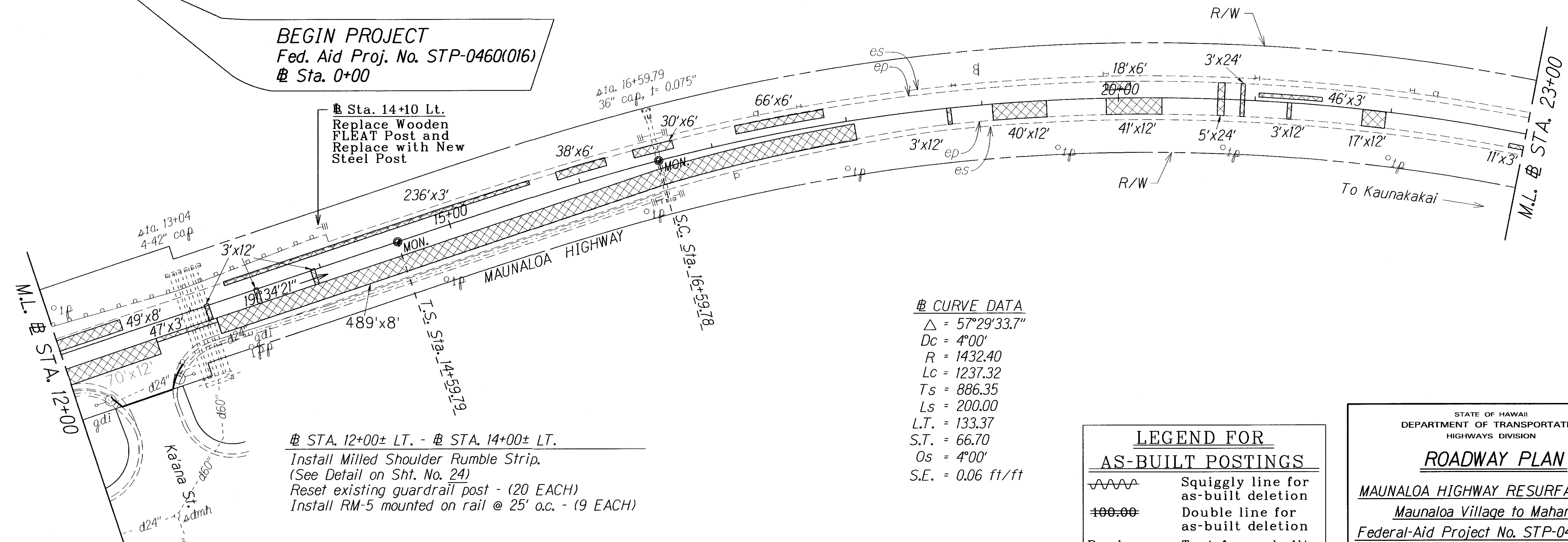


CURVE DATA
 $\Delta = 106^\circ 24' 42.4''$
 $D = 38^\circ 12'$
 $R = 150.00$
 $T = 200.55$
 $Lc = 278.59$
 $S.E. = 0.10 \text{ ft/ft}$

BEGIN PROJECT
Fed. Aid Proj. No. STP-0460(016)
Sta. 0+00

Sta. 14+10 Lt.
Replace Wooden FLEAT Post and Replace with New Steel Post

STA. 19+00± - # STA. 296+00±
Install Milled Edgeline and Centerline Rumble Strip.
(See Detail on Sht. Nos. 23 & 25)



CURVE DATA
 $\Delta = 57^\circ 29' 33.7''$
 $Dc = 4^\circ 00'$
 $R = 1432.40$
 $Lc = 1237.32$
 $Ts = 886.35$
 $Ls = 200.00$
 $L.T. = 133.37$
 $S.T. = 66.70$
 $Os = 4^\circ 00'$
 $S.E. = 0.06 \text{ ft/ft}$

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

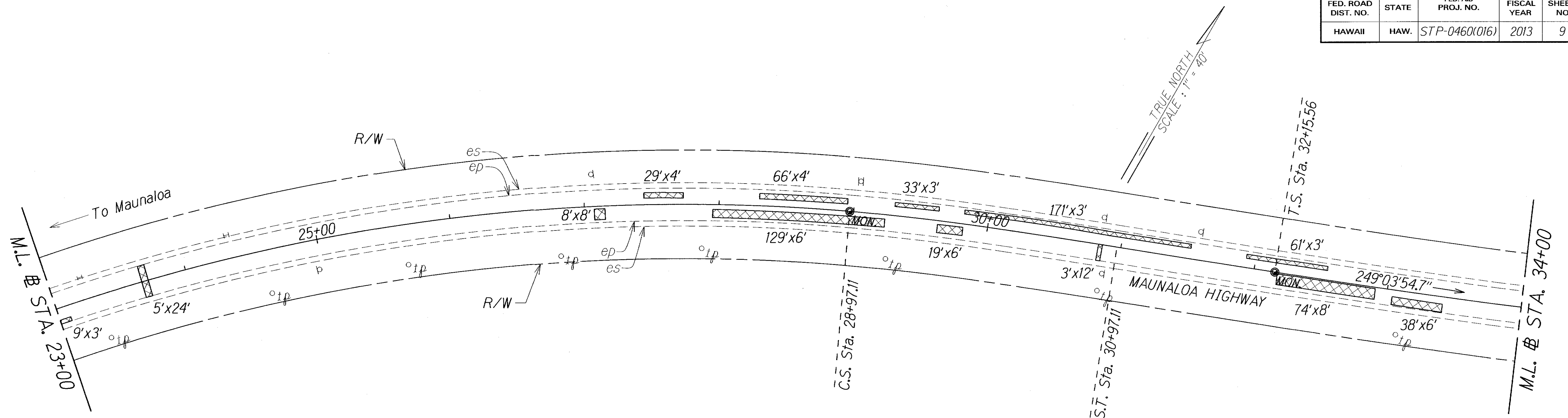
MAUNALOA HIGHWAY RESURFACING
Maunaloa Village to Mahana
Federal-Aid Project No. STP-0460(016)

Scale: 1" = 40' Date: July, 2012

SHEET No. 1 OF 14 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0460(016)	2013	9	40



△ CURVE DATA

$\Delta = 42^\circ 40' 19''$
 $Dc = 4^\circ 00'$
 $Rc = 1432.40$
 $Lc = 766.74$
 $Ts = 710.48$
 $Ls = 300.00$
 $L.T. = 200.11$
 $S.T. = 100.10$
 $\Theta s = 6^\circ 00'$
 $S.E. = 0.06 \text{ ft/ft}$

△ STA. 38+20± LT. - △ STA. 44+20± LT.

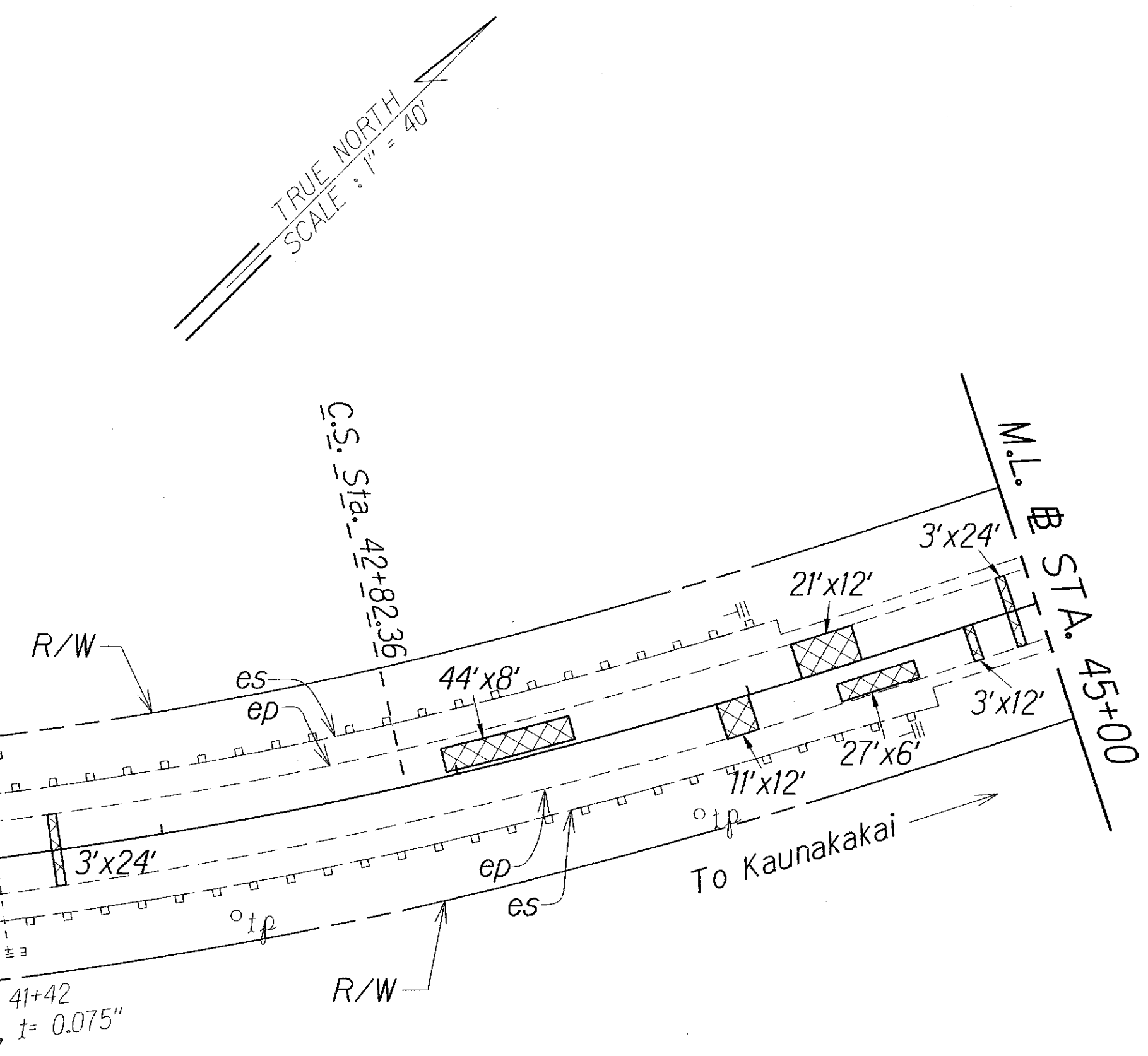
Install Milled Shoulder Rumble Strip.
 (See Detail on Sht. No. 24)
 Reset existing guardrail posts - (77 EACH)
 Install RM-5 mounted on rail @ 25' o.c. - (25 EACH)

△ Sta. 38+15 Lt.
 Replace Wooden FLEAT Post and Replace with New Steel Post

△ Sta. 37+70 Rt.
 Replace Wooden FLEAT Post and Replace with New Steel Post

△ STA. 37+50± RT. - △ STA. 44+50± RT.

Install Milled Shoulder Rumble Strip.
 (See Detail on Sht. No. 24)
 Reset existing guardrail posts - (100 EACH)
 Install RM-5 mounted on rail @ 25' o.c. - (29 EACH)



LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
	Text for as-built posting

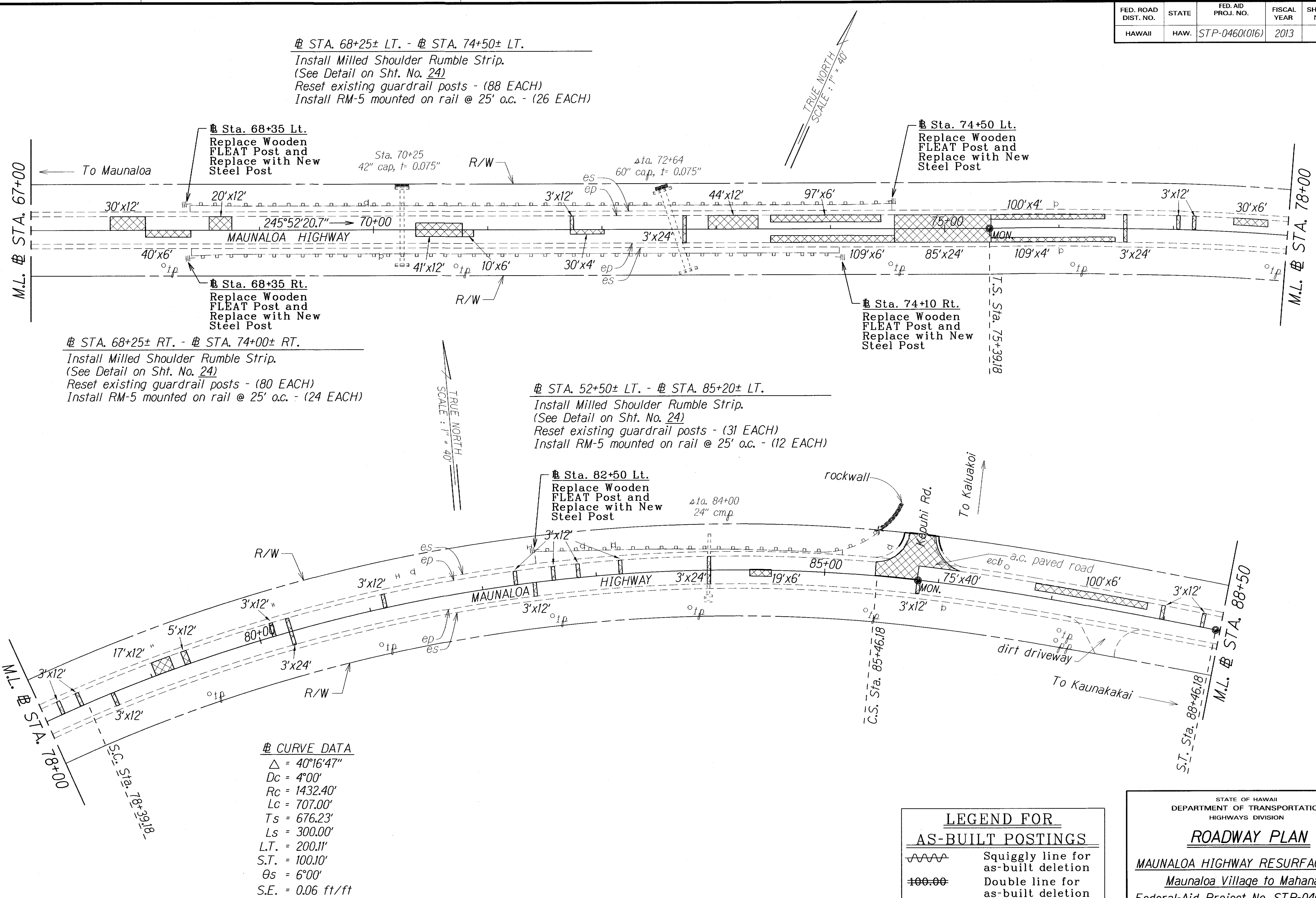
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
ROADWAY PLAN	
MAUNALOA HIGHWAY RESURFACING	
Maunaloa Village to Mahana	
Federal-Aid Project No. STP-0460(016)	
Scale: 1" = 40'	Date: July, 2012

SHEET No. 2 OF 14 SHEETS

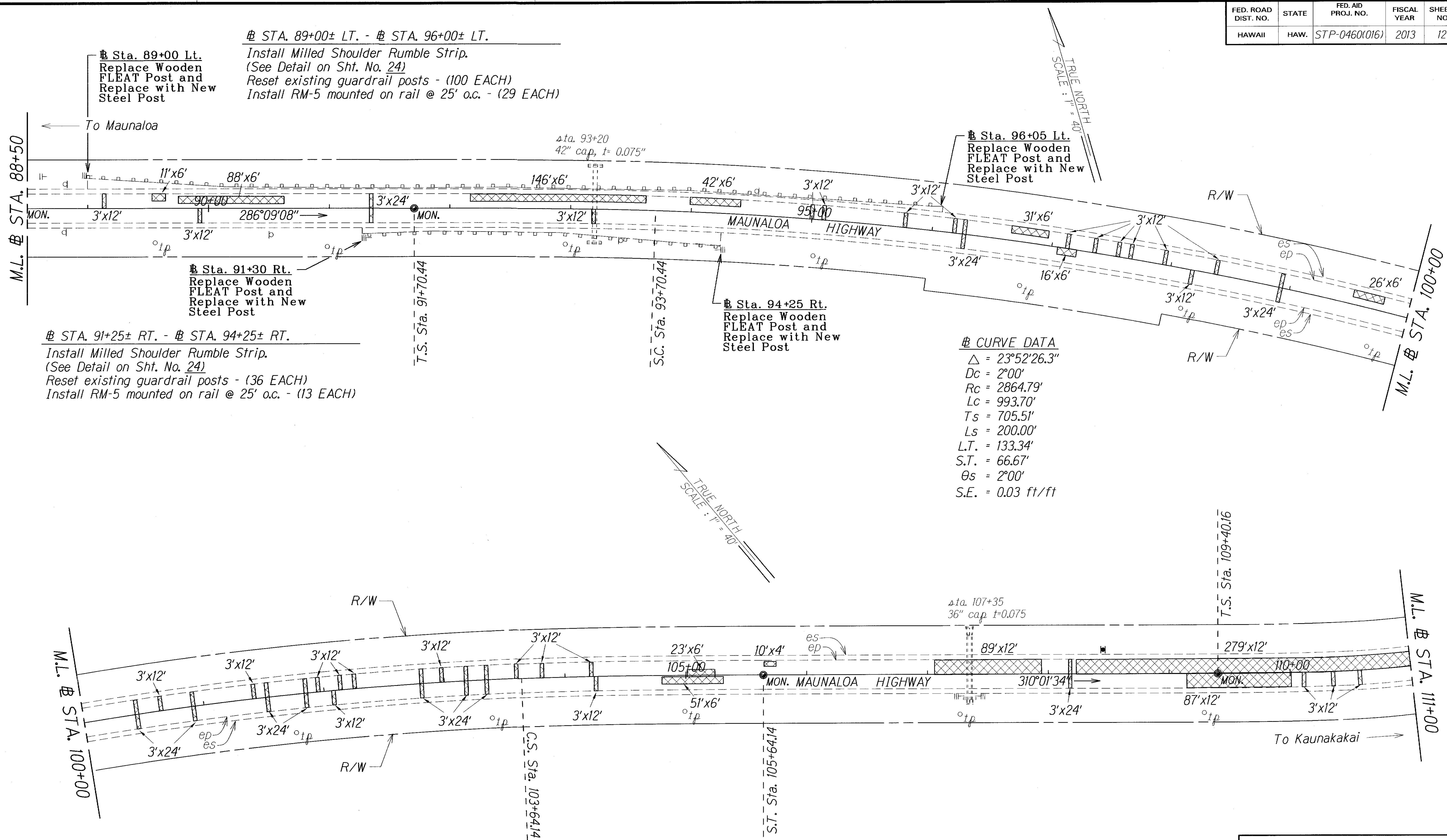
"AS-BUILT"

ORIGINAL PLAN	DATE
DESIGNED BY	7/12
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0460(016)	2013	11	40



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0460(016)	2013	12	40



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	1/17
	TRACED BY	
	DESIGNED BY	
	CHECKED BY	

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

MAUNALOA HIGHWAY RESURFACING
Maunaloa Village to Mahana
Federal-Aid Project No. STP-0460(016)

Scale: 1" = 40' Date: July, 2012

SHEET No. 5 OF 14 SHEETS

"AS-BUILT"

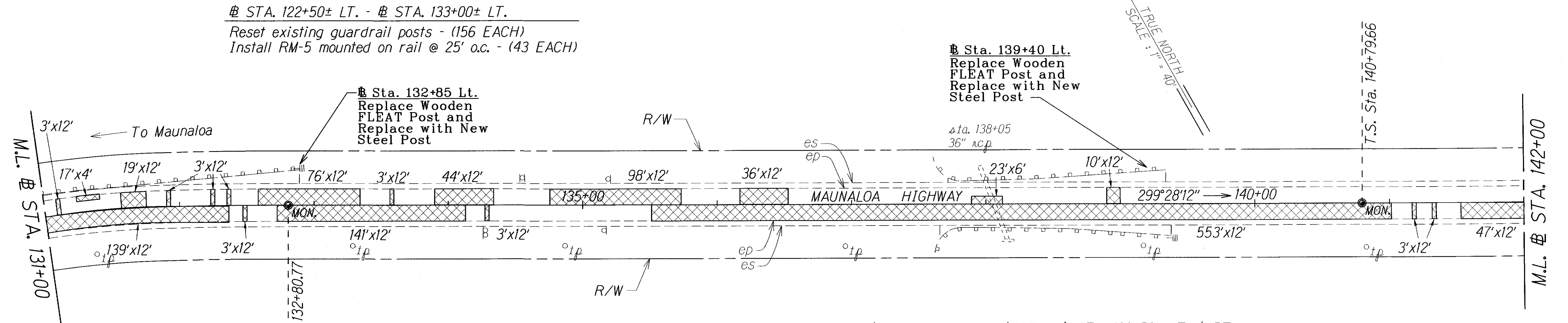
STA. 113+00± LT. - # STA. 118+75± LT.
Install Milled Shoulder Bumble Strip



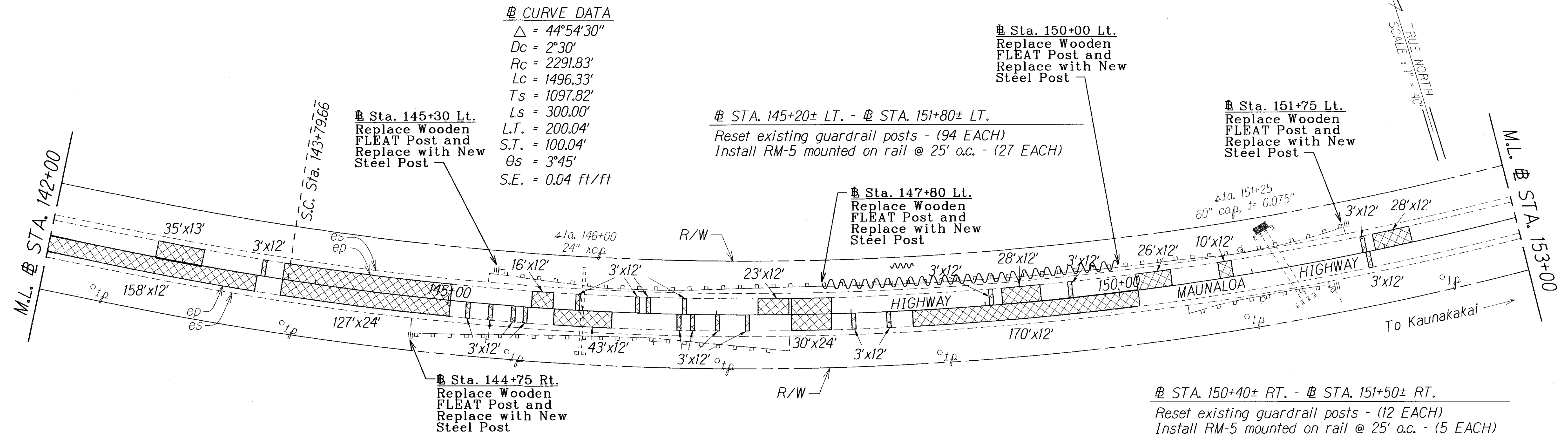
Sta. 122+35 Lt.
Replace Wooden

				"AS-BUILT"
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0460(016)	2013	14	40



STA. 137+50± LT & RT. - STA. 139+50± LT. & RT.
 Reset existing guardrail posts - (64 EACH)
 Install RM-5 mounted on rail @ 25' o.c. - (17 EACH)



STA. 144+80± RT. - STA. 147+50± RT.
 Reset existing guardrail posts - (51 EACH)
 Install RM-5 mounted on rail @ 25' o.c. - (12 EACH)

STA. 150+40± RT. - STA. 151+50± RT.
 Reset existing guardrail posts - (12 EACH)
 Install RM-5 mounted on rail @ 25' o.c. - (5 EACH)

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

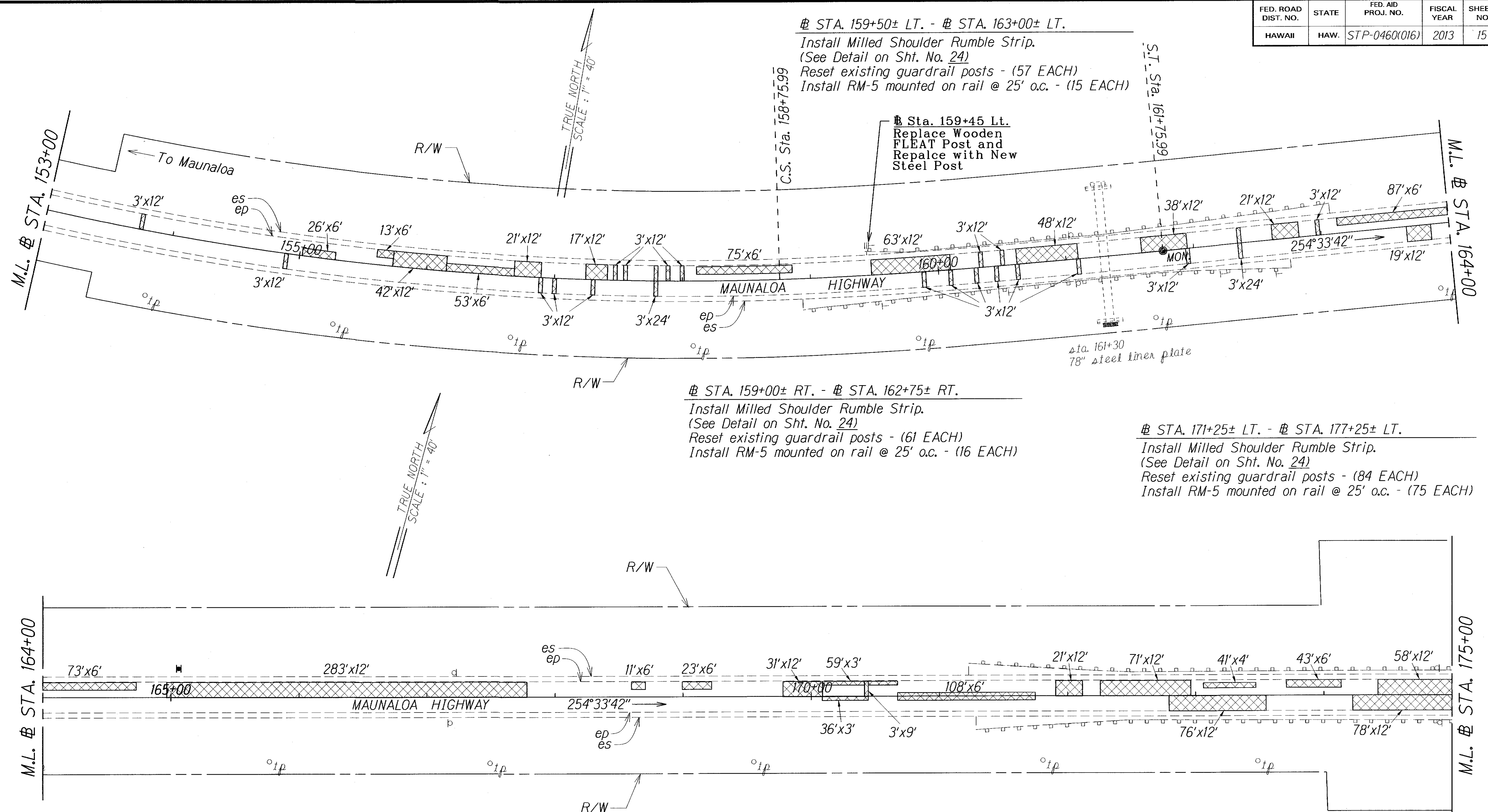
LEGEND FOR AS-BUILT POSTINGS	
~~~~~	Squiggly line for as-built deletion
==	Double line for as-built deletion
Roadway	Text for as-built posting

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
<b>ROADWAY PLAN</b>
MAUNALOA HIGHWAY RESURFACING Maunaloa Village to Mahana Federal-Aid Project No. STP-0460(016)
Scale: 1" = 40' Date: July, 2012
SHEET No. 7 OF 14 SHEETS

"AS-BUILT"



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0460(016)	2013	15	40



STA. 159+50± LT. - STA. 163+00± LT.  
 Install Milled Shoulder Rumble Strip.  
 (See Detail on Sht. No. 24)  
 Reset existing guardrail posts - (57 EACH)  
 Install RM-5 mounted on rail @ 25' o.c. - (15 EACH)

Sta. 159+45 Lt.  
 Replace Wooden  
 FLEAT Post and  
 Replace with New  
 Steel Post

STA. 159+00± RT. - STA. 162+75± RT.  
 Install Milled Shoulder Rumble Strip.  
 (See Detail on Sht. No. 24)  
 Reset existing guardrail posts - (61 EACH)  
 Install RM-5 mounted on rail @ 25' o.c. - (16 EACH)

STA. 171+25± LT. - STA. 177+25± LT.  
 Install Milled Shoulder Rumble Strip.  
 (See Detail on Sht. No. 24)  
 Reset existing guardrail posts - (84 EACH)  
 Install RM-5 mounted on rail @ 25' o.c. - (75 EACH)

STA. 171+25± RT. - STA. 176+50± RT.  
 Install Milled Shoulder Rumble Strip.  
 (See Detail on Sht. No. 24)  
 Reset existing guardrail posts - (72 EACH)  
 Install RM-5 mounted on rail @ 25' o.c. - (22 EACH)

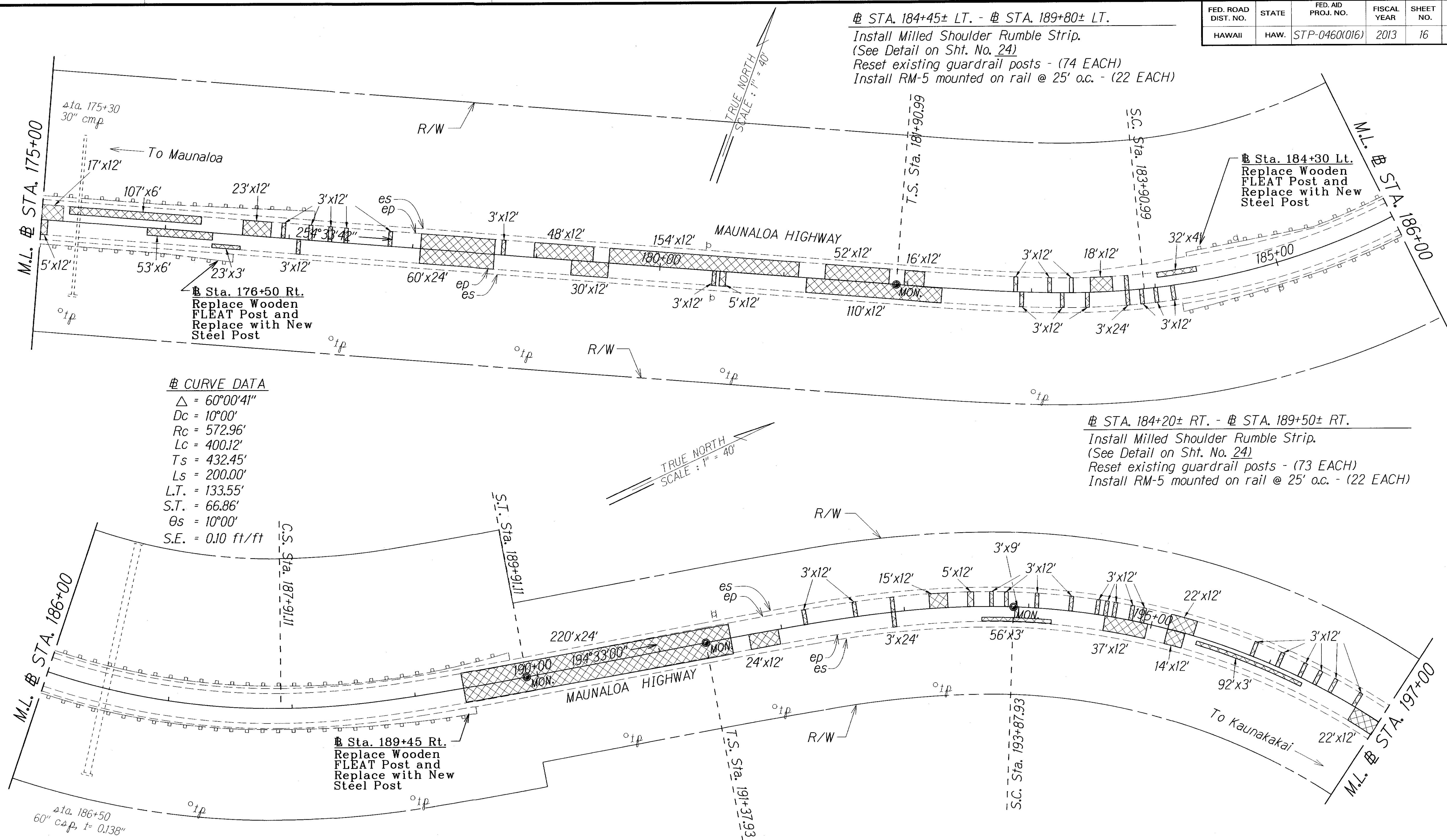
LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION  
**ROADWAY PLAN**  
 MAUNALOA HIGHWAY RESURFACING  
 Maunaloa Village to Mahana  
 Federal-Aid Project No. STP-0460(016)  
 Scale: 1" = 40' Date: July, 2012  
 SHEET No. 8 OF 14 SHEETS

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	DATE
DRAWN BY	DATE
DESIGNED BY	DATE
QUANTITIES BY	DATE
CHECKED BY	DATE



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0460(016)	2013	16	40



#### CURVE DATA

$\Delta = 60^{\circ}00'41''$   
 $Dc = 10^{\circ}00'$   
 $Rc = 572.96'$   
 $Lc = 400.12'$   
 $Ts = 432.45'$   
 $Ls = 200.00'$   
 $L.T. = 133.55'$   
 $S.T. = 66.86'$   
 $\theta s = 10^{\circ}00'$   
 $S.E. = 0.10 \text{ ft/ft}$

#### STA. 184+20± RT. - STA. 189+50± RT.

Install Milled Shoulder Rumble Strip.  
 (See Detail on Sht. No. 24)  
 Reset existing guardrail posts - (73 EACH)  
 Install RM-5 mounted on rail @ 25' o.c. - (22 EACH)

DATE	1/10/12
SURVEY PLOTTED BY	TLB
DRAWN BY	TLB
DESIGNED BY	TLB
CHECKED BY	TLB
ORIGINAL PLAN	
NOTE BOOK	
DESIGNED BY	TLB
CHECKED BY	TLB

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLAN**

MAUNALOA HIGHWAY RESURFACING  
Maunaloa Village to Mahana  
Federal-Aid Project No. STP-0460(016)

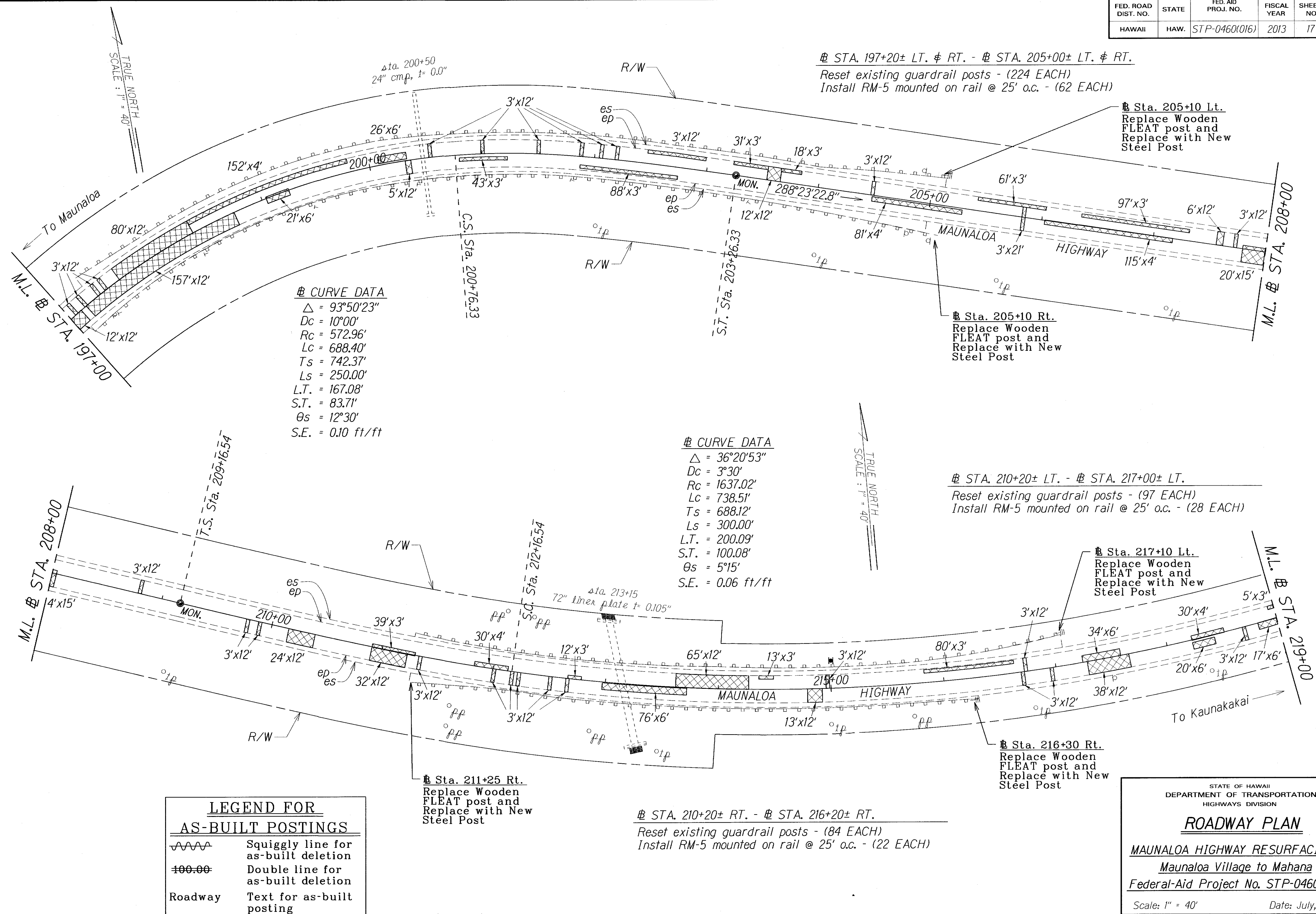
Scale: 1" = 40' Date: July, 2012

SHEET No. 9 OF 14 SHEETS

"AS-BUILT"



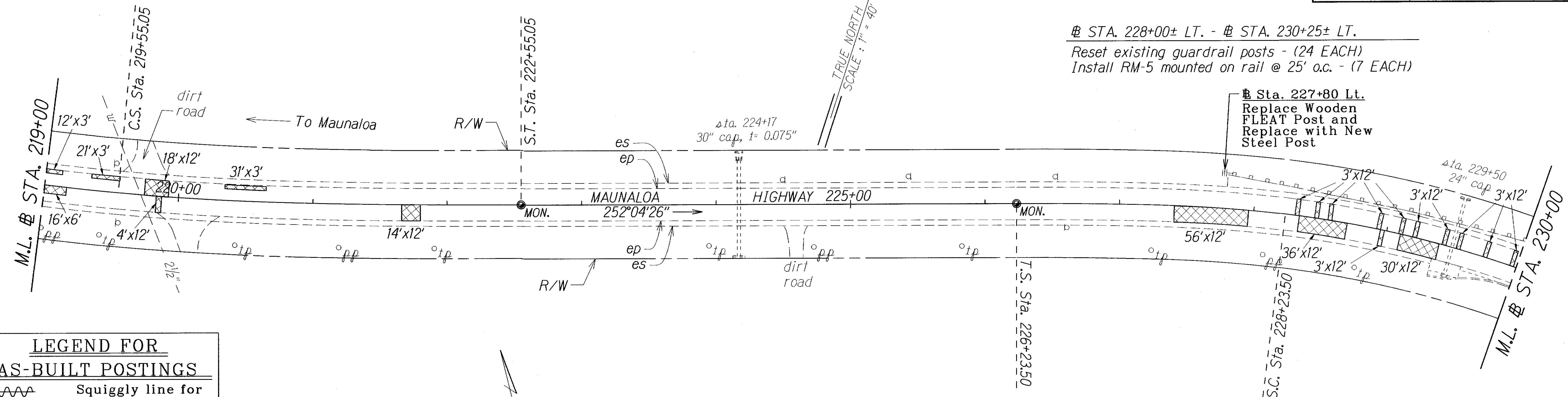
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0460(016)	2013	17	40



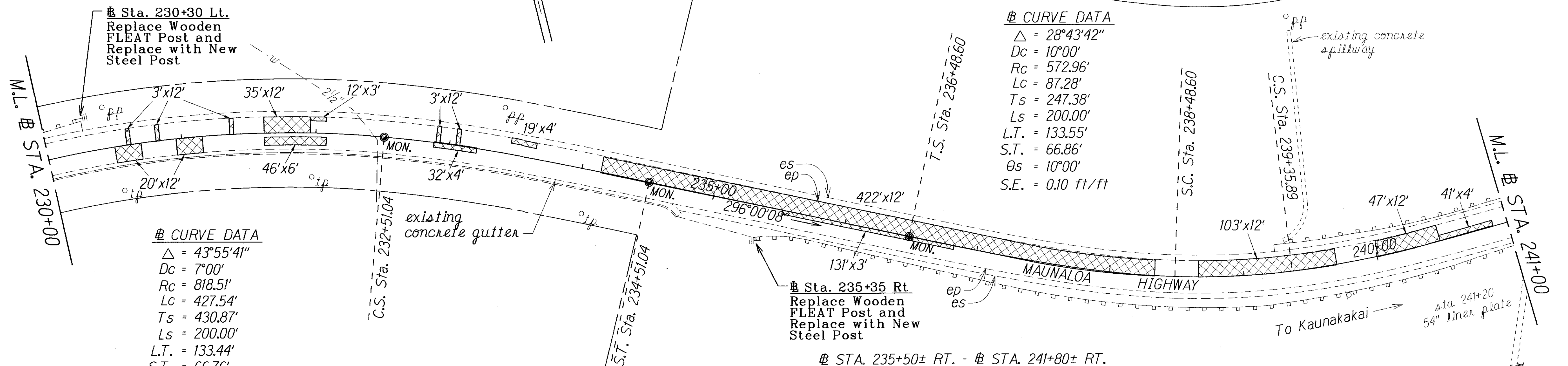
"AS-BUILT"



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0460(016)	2013	18	40



LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting



CURVE DATA	
$\Delta$	$= 28^{\circ}43'42''$
$D_c$	$= 10^{\circ}00'$
$R_c$	$= 572.96'$
$L_c$	$= 87.28'$
$T_s$	$= 247.38'$
$L_s$	$= 200.00'$
$L.T.$	$= 133.55'$
$S.T.$	$= 66.86'$
$\theta_s$	$= 10^{\circ}00'$
$S.E.$	$= 0.10 \text{ ft/ft}$

CURVE DATA	
$\Delta$	$= 43^{\circ}55'41''$
$D_c$	$= 7^{\circ}00'$
$R_c$	$= 818.51'$
$L_c$	$= 427.54'$
$T_s$	$= 430.87'$
$L_s$	$= 200.00'$
$L.T.$	$= 133.44'$
$S.T.$	$= 66.76'$
$\theta_s$	$= 7^{\circ}00'$
$S.E.$	$= 0.10 \text{ ft/ft}$

STA. 229+50± RT. - STA. 234+80± RT.  
Prior to resurfacing cold plane face of existing concrete curb to maintain the finish grade. (See Detail on Sht. No. 7)

STA. 235+50± RT. - STA. 241+80± RT.  
Reset existing guardrail posts - (89 EACH)  
Install RM-5 mounted on rail @ 25' o.c. - (22 EACH)

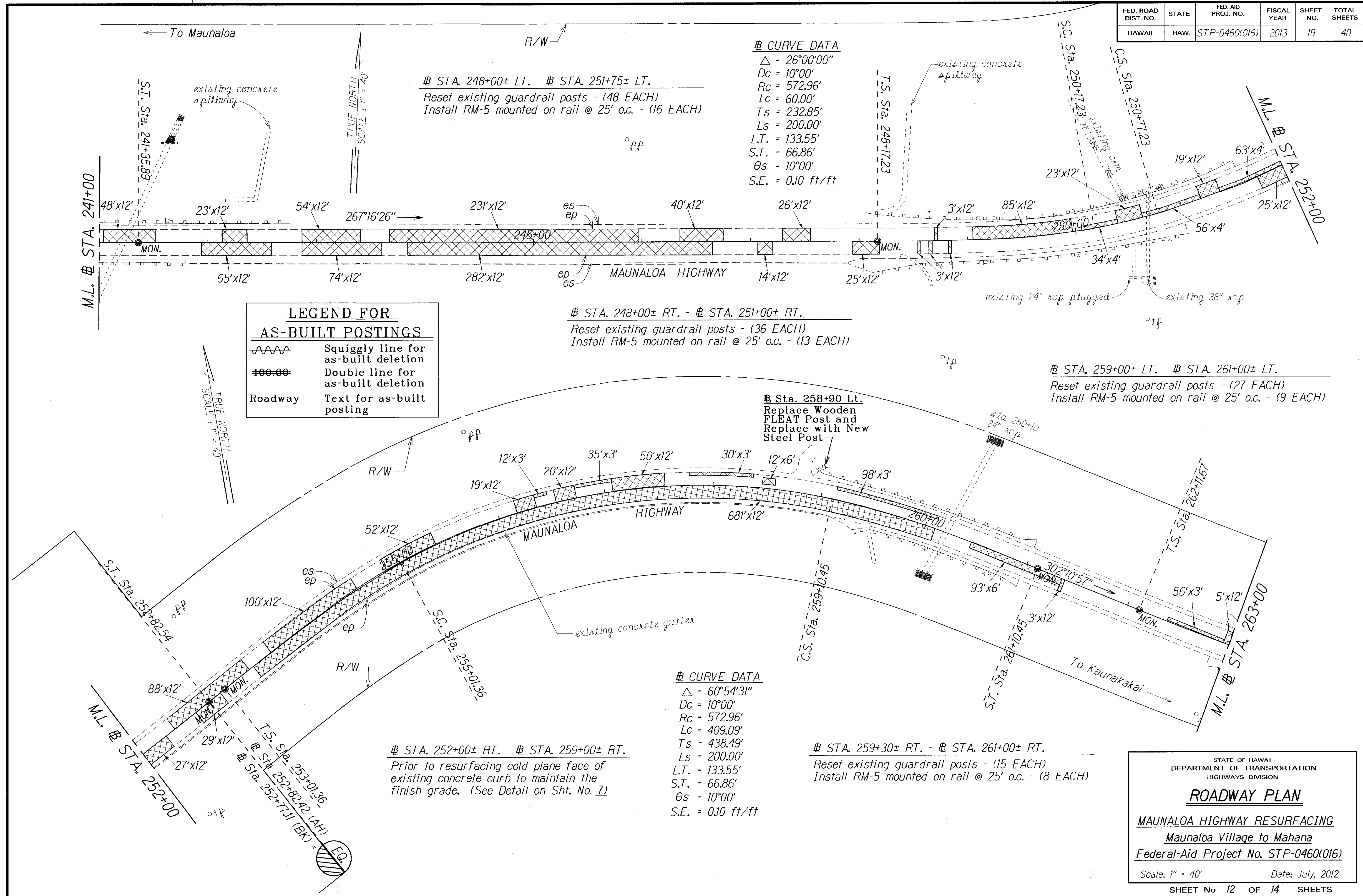
ORIGINAL PLAN	DATE	7/12
SURVEY PLOTTED BY		
DRAWN BY		
TRACED BY		
DESIGNED BY		
CHECKED BY		

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>ROADWAY PLAN</b>	
MAUNALOA HIGHWAY RESURFACING Maunaloa Village to Mahana Federal-Aid Project No. STP-0460(016)	
Scale: 1" = 40'	Date: July, 2012
SHEET No. 11 OF 14 SHEETS	

"AS-BUILT"



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0460(016)	2013	19	40

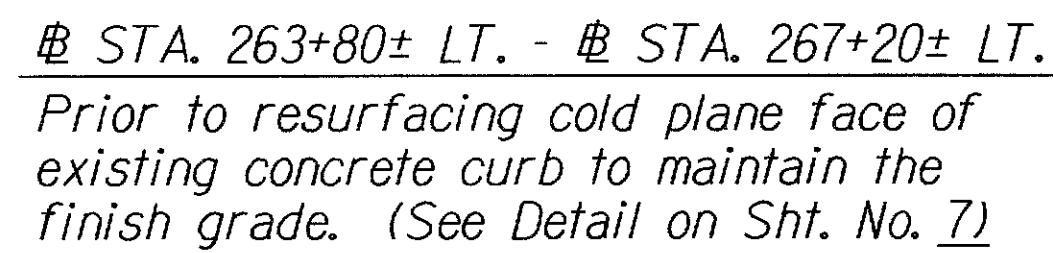


"AS-BUILT"



<u># CURVE DATA</u>  $\Delta = 43^{\circ}00'00''$	<u># STA. 267+25± LT. - # STA. 275+25± LT. (EQ. STATION)</u>            Install Milled Shoulder Rumble Strip.
-------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------

Install Milled Shoulder Rumble Strip.  
(See Detail on Sht. No. 24)  
Reset existing guardrail posts - (69 EACH)  
Install RM-5 mounted on rail @ 25' o.c. - (21 EACH) ———

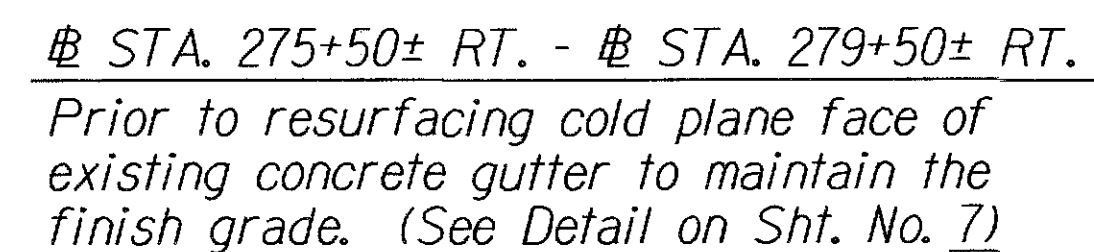
$$\begin{aligned}\Delta &= 43^{\circ}00'00'' \\ Dc &= 10^{\circ}00' \\ Rc &= 572.96' \\ Lc &= 230.00' \\ Ts &= 326.74' \\ Ls &= 200.00' \\ L.T. &= 133.55' \\ S.T. &= 66.86' \\ \theta_s &= 10^{\circ}00' \\ S.E. &= 0.10 \text{ ft/ft}\end{aligned}$$


Reset existing guardrail posts - (87 EACH)  
Install RM-5 mounted on rail @ 25' o.c. - (26 EACH)

Reset existing guardrail posts - (43 EACH)  
Install RM-5 mounted on rail @ 25' o.c. - (15 EACH)

Sta. 287+20 Lt.  
Replace Wooden  
FLEAT Post and  
Replace with New  
Steel Post

	Squiggly line for as-built deletion
<del>100.00</del>	Double line for as-built deletion
Roadway	Text for as-built posting



# STA. 279+00± RT. - # STA. 281+25± RT.  
Reset existing guardrail posts - (24 EACH)  
Install RM-5 mounted on rail @ 25' o.c. - (10 EACH)

$$\begin{aligned}\Delta &= 2^{\circ}04'44'' \\ Dc &= 4^{\circ}00' \\ Rc &= 1432.40' \\ Lc &= 326.97' \\ Ts &= 366.70' \\ Ls &= 200.00' \\ L.T. &= 133.37' \\ S.T. &= 66.70' \\ \theta s &= 4^{\circ}00' \\ S.E. &= 0.06 \text{ ft/ft}\end{aligned}$$

"AS-BUILT"	20
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